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Problem 5: Brick House

Points: 10

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Problem Background

We want to build a row of bricks for our brick house that is a certain number of inches long, and we have a number of small bricks and large bricks with which to do it. You need to write an application that will decide if its is possible to build this row of bricks using some or all of the given bricks. You do not need to use all of the given bricks!

Problem Description

Your program will be given a goal length for the brick wall and the number of small and large bricks available. Small bricks are each 1 inch long. Large bricks are 5 inches long. You will need to determine if it is possible to build a row of bricks exactly as long as the goal using only the available bricks.

Sample Input

The first line of your program's input, **received from the standard input channel**, will contain a positive integer representing the number of test cases. Each test case will consist of a single line, including three non-negative integers separated by spaces:

- The first integer represents the number of small, one-inch-long bricks

- The second integer represents the number of large, five-inch-long bricks
- The third integer represents the target length of the wall, **X**, in inches

3

3 1 8

3 1 9

3 2 10

Sample Output

For each test case, your program must print a single line with the word “true” if it is possible to build a wall of exactly **X** inches using only the bricks available. Otherwise, it should print “false”.

true

false

true